

AMENDMENTS TO THE CLAIMS:

Claims 1-26 (cancelled)

27. (Previously presented) A semiconductor package comprising:

a first semiconductor having at least one upper face electrode on an upper face of said first semiconductor, and a lower face electrode on a lower face of said first semiconductor, said first semiconductor being sealed by resin;

a heat radiating plate having a surface to which is joined said lower face electrode via solder or conductive paste, with said solder or conductive paste being in contact with said lower face electrode; and

pillared electrodes joined to said at least one upper face electrode and said heat radiating plate, respectively, with leading ends of said pillared electrodes being exposed so as to constitute electric connecting parts, and with said leading ends of said pillared electrodes extending to a uniform height relative to one another.

Claim 28 (cancelled)

29. (Previously presented) The semiconductor package according to claim 27, wherein said resin comprises a sealing resin covering said first semiconductor and said surface of said heat radiating plate, but not covering said leading ends of said pillared electrodes.

30. (Previously presented) The semiconductor package according to claim 27, further comprising a second semiconductor having at least one upper face electrode on an upper face of said second semiconductor, and a lower face electrode on a lower face of said second semiconductor, with said second semiconductor being the same as said first semiconductor and with said lower face electrode of said second semiconductor being joined to said heat radiating plate via solder or conductive paste, and

wherein said heat radiating plate comprises ceramic and has an electric circuit of equal polarity formed from at least one of gold, silver, copper, nickel and tungsten, with said electric circuit being on said ceramic and with said first and second semiconductors being joined to said electric circuit.

31. (Previously presented) The semiconductor package according to claim 27, further comprising a second semiconductor having at least one upper face electrode on an upper face of said second semiconductor, and a lower face electrode on a lower face of said second semiconductor, with said second semiconductor exhibiting different characteristics relative to said first semiconductor and with said lower face electrode of said second semiconductor being joined to said heat radiating plate via solder or conductive paste, and

wherein said heat radiating plate comprises ceramic and has electric circuits of independent polarities formed from at least one of gold, silver, copper, nickel and tungsten, with said electric circuits being on said ceramic and with said first and second semiconductors being joined to said electric circuits, respectively.

32. (Previously presented) The semiconductor package according to claim 27, wherein said heat radiating plate has a circuit for said first semiconductor and said pillared electrodes, with said circuit being formed from at least one of gold, silver, copper, nickel and tungsten and being provided on a front surface of said heat radiating plate, and

said heat radiating plate comprises ceramic layers separated by a conductive layer that is of a material equal to a material of said circuit, with said conductive layer being connected to said circuit such that heat of said first semiconductor is to be radiated by said ceramic layers and said conductive layer.

33. (Previously presented) The semiconductor package according to claim 27, wherein said heat radiating plate comprises at least one of copper, a copper alloy, aluminum and an aluminum alloy, with or without being subjected to a surface treatment.

34. (Previously presented) The semiconductor package according to claim 27, wherein said leading ends of said pillared electrodes are exposed by covering said pillared electrodes with said resin and then simultaneously removing a portion of said resin and a portion of said pillared electrodes.

35. (Previously presented) The semiconductor package according to claim 27, wherein said leading ends of said pillared electrodes joined to said at least one upper face electrode and said heat radiating plate extend to a uniform height relative to one another by being smoothly pressed.

36. (Previously presented) The semiconductor package according to claim 27, wherein each of said pillared electrodes comprises an inner portion and an outer portion, with said inner portion being of a hardness that is different than a hardness of said outer portion.

37. (Previously presented) The semiconductor package according to claim 27, wherein each of said pillared electrodes comprises an inner portion and an outer portion, with said inner portion having a melting temperature that is different than a melting temperature of said outer portion.

38. (Previously presented) The semiconductor package according to claim 27, further comprising a second semiconductor having at least one upper face electrode on an upper face of said second semiconductor, and a lower face electrode on a lower face of said second semiconductor, with said second semiconductor exhibiting different characteristics relative to said first semiconductor, with said lower face electrode of said second semiconductor having current and voltage characteristics that are equal to current and voltage characteristics of said lower face electrode of said first semiconductor, and with said lower face electrode of said second semiconductor being joined to said heat radiating plate via solder or conductive paste as is said lower face electrode of said first semiconductor such that said first and second semiconductors are mounted on said heat radiating plate.

39. (Previously presented) The semiconductor package according to claim 27, wherein said heat radiating plate includes pits and projections on a surface that is opposite said surface to which said lower face electrode is joined.

40. (Previously presented) The semiconductor package according to claim 27, further comprising bumps between said at least one upper face electrode and one of said pillared electrodes joined to said at least one upper face electrode.

Claims 41-55 (cancelled)

56. (Previously presented) The semiconductor package according to claim 35, wherein all of said leading ends of said pillared electrodes joined to said at least one upper face electrode and said heat radiating plate extend to a uniform height relative to one another by being smoothly pressed.

57. (Currently amended) A semiconductor package comprising:
a first semiconductor having at least one upper face electrode on an upper face of said first semiconductor, and a lower face electrode on a lower face of said first semiconductor;
a heat radiating plate having a surface to which is joined said lower face electrode via solder or conductive paste; and
pillared electrodes joined to said at least one upper face electrode and said heat radiating plate, respectively, with leading ends of said pillared electrodes being exposed so as to constitute electric connecting parts,
wherein said leading ends of said pillared electrodes joined to said at least one upper face electrode and said heat radiating plate are ~~substantially~~ equally spaced ~~relative to one another~~ from said surface of said heat radiating plate relative to one another, and
wherein each of said pillared electrodes comprises an inner portion and an outer portion, with said inner portion being of a hardness that is different than a hardness of said outer portion.

58. (Previously presented) The semiconductor package according to claim 57, wherein all of said leading ends of said pillared electrodes joined to said at least one upper face electrode and said heat radiating plate are substantially equally spaced relative to one another from said surface of said heat radiating plate.

59. (Currently amended) A semiconductor package comprising:
a first semiconductor having at least one upper face electrode on an upper face of said first semiconductor, and a lower face electrode on a lower face of said first semiconductor;
a heat radiating plate having a surface to which is joined said lower face electrode via solder or conductive paste; and
pillared electrodes joined to said at least one upper face electrode and said heat radiating plate, respectively, with leading ends of said pillared electrodes being exposed so as to constitute electric connecting parts,
wherein said leading ends of said pillared electrodes joined to said at least one upper face electrode and said heat radiating plate are ~~substantially~~ equally spaced ~~relative to one another~~ from said surface of said heat radiating plate relative to one another, and
wherein each of said pillared electrodes comprises an inner portion and an outer portion, with said inner portion having a melting temperature that is different than a melting temperature of said outer portion.

60. (Previously presented) The semiconductor package according to claim 59, wherein all of said leading ends of said pillared electrodes joined to said at least one upper face electrode and said heat radiating plate are substantially equally spaced relative to one another from said surface of said heat radiating plate.